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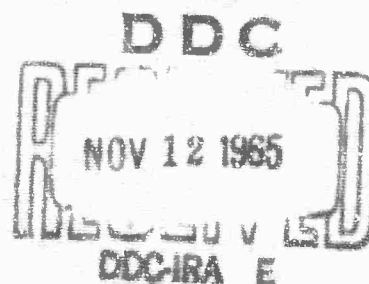
Group Effectiveness Research Laboratory

DEPARTMENT OF PSYCHOLOGY · UNIVERSITY OF ILLINOIS · URBANA, IL

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TESTS, QUESTIONNAIRES AND TASKS OF THE GROUP EFFECTIVENESS RESEARCH LABORATORY: 1951-1964

J. RICHARD HACKMAN
UNIVERSITY OF ILLINOIS
TECHNICAL REPORT NO. 24
JULY, 1965



Group and Organizational Factors Influencing Creativity
Office of Naval Research Contract NR 177-473, Monr-1934(36)
FRED E. FIEDLER, CHARLES E. OSGOOD,
LAWRENCE M. STOLURROW, AND HARRY C. TSIANDIS
Principal Investigators

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DEPARTMENT OF PSYCHOLOGY

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URBANA, ILLINOIS

Tests, Questionnaires and Tasks
of the
Group Effectiveness Research Laboratory:
1951-1961

J. Richard Hackman
University of Illinois

Technical Report No. 24

July, 1965

Group and Organizational Factors Influencing Creativity
Office of Naval Research Contract NR 177-472, Nonr-1834(36)

Fred E. Fiedler, Charles E. Osgood,
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A B S T R A C T

Tests, Questionnaires and Tasks
of the
Group Effectiveness Research Laboratory:
1951-1964

J. Richard Hackman
University of Illinois

This report presents a collection of research instruments used by the Group Effectiveness Research Laboratory (GERL) of the University of Illinois Department of Psychology from 1951-1964.

Its purpose is to provide a single source to which researchers may refer for a summary of the development and application of GERL research instruments. Included are descriptions of seventeen types of tests and questionnaires and fifty-two group tasks in over forty GERL research studies.

Tests, Questionnaires and Tasks
of the
Group Effectiveness Research Laboratory:
1951-1964

J. Richard Hackman

This report presents a collection of research instruments used by the Group Effectiveness Research Laboratory (GERL) of the University of Illinois Department of Psychology from 1951-1964.

The purpose of this report is to provide a single source to which researchers may refer for a summary of the development and application of GERL research instruments. It is hoped that this information will be useful for the selection and revision of materials for new studies.

Though an effort was made to be comprehensive, some materials are not included in this collection. Test and questionnaire materials were taken only from research projects supported by the Office of Naval Research (ONR) and/or the Advanced Research Projects Agency (ARPA) of the U. S. Government,¹ though reference to other projects using any given instrument is provided when possible. Tasks were taken from all GERL projects. A small number of questionnaires from early studies are omitted, as are materials idiosyncratic to specific research problems. An example of the latter type of omission is a brief questionnaire used in one study to measure the attitude of Ss toward worship service liturgy. Since scores from this questionnaire were used only to assign Ss to experimental treatments, the instrument was considered outside the aims of this report, and was excluded.

¹ONR contracts NR01-07135, Social Perception and Group Effectiveness, Fred E. Fiedler (1951-1953 Lee J. Cronbach and F. E. Fiedler) principal investigator; Nonr-1834(36), Group and Organizational Factors Influencing Creativity, Fred E. Fiedler, Lawrence M. Stolurow, and Harry C. Triandis, principal investigators; ONR-ARPA contract NR 177-472, Nonr-1834(36), Communication, Cooperation, and Negotiation in Culturally Heterogeneous Groups, Fred E. Fiedler, Charles E. Osgood, Lawrence M. Stolurow and Harry C. Triandis, principal investigators. Thanks are due Carlton B. Bode, who assisted in reviewing technical reports and abstracting information from them.

The presentation of materials is divided into three major sections:

1. Tests. Tests are arranged alphabetically. A brief description of each is provided, and the CERL projects in which each has been used are referenced chronologically. (Page 2)
2. Questionnaires. Questionnaires are arranged by generic type. Within each type specific questionnaires are presented chronologically, and studies in which each has been used are referenced. (Page 8)
3. Tasks. Tasks are arranged chronologically by type. When descriptive information is available on a task, it is presented, as are references to the study(ies) in which the task was used. (Page 25)

Selected instruments are presented in the appendix.

Section I: Tests

Tests are loosely defined here as instruments on which at least some standardizing or validating information has been obtained. Many of the tests are commercially published. Tests (as opposed to many questionnaires) are usually not revised when used in a particular study.

Anxiety Differential

The Anxiety Differential was developed by Alexander and Husek (1962) and measures situational or examination anxiety. It consists of 31 8-point semantic differential type items, of the form:

Dreams
loose: ____: ____: ____: ____: ____: ____: ____: tight

Alexander and Husek (1962) present evidence for the construct validity of the Anxiety Differential, and give information on its scoring and interpretation.

Used by: Meuwese and Fiedler, 1965
 Anderson, 1964
 Triandis, Fishbein, and Hall, 1964
 Triandis and Hall, 1964

California F-Scale

The F-Scale was developed in 1950 by Adorno et al and is a very widely used measure of authoritarianism. Its authors claim that the F (Fascism)

Scale discriminates between conservative, rigid, over-socialized persons and their equalitarian, flexible, more affectional counterparts.

The form of the F-Scale used by the GIRL consists of 20 items of the type:

"People tend to place too much emphasis on respect for authority."

The respondent indicates his agreement or disagreement with each item on a scale ranging from +3 to -3, excluding the zero point. Information on scoring, validity, and interpretation is presented by Adorno et al (1950). In addition, a paper by Triandis, Davis, and Takezawa (1964) presents a method of scoring the F-Scale to yield indices of response style.

Used by: Fishbein, Landy, and Hatch, 1965
Triandis, Mikesell, and Ewen, 1962a, 1962b

Projects not supported by CNR using the F-Scale:

Bass, Fiedler, and Krueger, 1964

Category Width

Developed by Pettigrew (1958), the Category Width scale yields an index of cognitive organization. Scores reflect a tendency to categorize broadly or narrowly, which Bass, Fiedler, and Krueger (1964) call "equivalence range response style."

The scale consists of ten items of the form:

It has been estimated that the average width of windows is 34 inches. What do you think:

- a. is the width of the widest window.....
 - 1. 1,363 inches 3. 48 inches
 - 2. 341 inches 4. 81 inches
- b. is the width of the narrowest window.....
 - 1. 3 inches 3. 11 inches
 - 2. 18 inches 4. 1 inch

Information on validity, scoring, and interpretation are given in Pettigrew (1958).

Used by: Fishbein, Landy, and Hatch, 1965
Triandis, Mikesell, and T. J., 1962a

Projects not supported by ONR or ARPA using the Category Width Test:

Bass, Fiedler, and Krueger, 1964

Dogmatism Test

The Dogmatism Test was developed by Rokeach (1960) as a measure of closed-mindedness. Closed-mindedness is said to be characterized by "a high magnitude of rejection of opposing beliefs, a relatively low degree of interconnectedness among belief systems, and a markedly greater multiplexity of cognitions about objects which are positively evaluated as compared with cognitions about objects which are negatively evaluated." (Krech, Crutchfield, and Ballachey, 1962).

The Dogmatism scale used by GERL consists of 40 items of the form:

I'd like it if I could find someone who would tell me how
to solve my personal problems.

The respondent indicates his agreement or disagreement with each item on a scale ranging from +3 to -3, excluding the zero point. Full information on the validity and interpretation of the Dogmatism Test is given in Rokeach (1960).

Used by: Fishbein, Landy, and Hatch, 1965
Triandis, Mikesell, and Ewen, 1962a

LSU Interest Inventory

The LSU Interest Inventory yields indices of self, task, and interpersonal orientation. It consists of 27 items of the form:

One of the greatest satisfactions in life is:

- ☐ a. recognition for your efforts
- ☐ b. the feeling of a job well done
- ☐ c. the fun of being with friends

An account of the development and application of this inventory is given by Bass and Duntzman (1963). An early form of the inventory was used by the GERL by permission of the author. The test is now published by Consulting Psychologists Press, 577 College Avenue, Palo Alto, California, from whom permission should be obtained before research use.

Used by: Anderson and Fiedler, 1962

Projects not supported by ONR or ARPA using the LSU Inventory:

Bass, Fiedler, and Krueger, 1964
McGrath and Julian, 1962

Kluckhohn Value Orientation

This test consists of items designed to tap basic value orientations regarding the nature of man and his relation to nature and society. McGrath's (1962) adaption, used in the research identified below, consists of five parts:

- (1) the basic nature of man (6 scales)
- (2) past, present, and future: man's temporal orientation (3 scales)
- (3) man in relation to nature (3 scales)
- (4) man's basic purpose in life (3 scales)
- (5) man's relation to his fellow men (3 scales)

All scales are of the form:

Man's basic nature is sinful; he can only become good by God's grace.

: _____ : _____ : _____ : _____ : _____ :
Strongly Agree Agree Tend to Agree Tend to Disagree Disagree Strongly Disagree

Used by: Triandis and Hall, 1964

Projects not supported by ONR or ARPA using the adaption:

McGrath, 1962

Multi-Aptitude Test

The Multi-Aptitude Test consists of a number of timed sub-scales relevant to several general types of aptitude and ability. The test is published by the Psychological Corporation, New York, and has been used by GERL with

permission of the publisher. Four sub-tests from the Multi-aptitude Test have been used: vocabulary, general information, number series, and clerical ability. Time limits for each test are recommended by the Psychological Corporation, but have sometimes been altered in practice for specific populations of Ss.

Brief descriptions of the sub-tests are presented below.

The Vocabulary Sub-Test consists of 15 vocabulary items of the form:

FRAGILE A) severed B) sprightly C) tattered
 D) brittle E) prudent

Recommended time limit for the vocabulary test is three minutes.

Used by: Anderson and Fiedler, 1962
 Meuwese and Fiedler, 1965
 Fiedler, Hackman, and Meuwese, 1964
 Anderson, 1964
 Fishbein, Landy, and Hatch, 1965
 Triandis and Hall, 1964

The General Information Sub-Test consists of 15 general information items of the form:

The larynx is in the

A) head B) neck C) shoulder D) abdomen

Recommended time limit for the general information test is two minutes.

Used by: Anderson and Fiedler, 1962
 Meuwese and Fiedler, 1965
 Fiedler, Hackman, and Meuwese, 1964
 Anderson, 1964
 Fishbein, Landy, and Hatch, 1965
 Triandis and Hall, 1964

The Number Series Sub-Test consists of 10 items of the form:

9 19 29 39 49 59 _____

Recommended time limit for the number series test is four minutes.

Used by: Fishbein, Landy, and Hatch, 1965
 Anderson, 1964
 Triandis and Hall, 1964

The Checking Test (Clerical Ability) consists of 30 pairs of words or numbers of the form:

4825627 _____ 4828627

Ventilated Awning Co. _____ Ventilated Awning Co.

The respondent indicates "same" (S) or "different" (D) in the space provided. Recommended time limit for the checking test is one minute.

Used by: Fishbein, Landy, and Hatch, 1965

Section II: Questionnaires

During the twelve years of research at GRL, many questionnaires for many purposes have been developed and refined. They tend to fall into six general categories:

1. Semantic Differential and variants:
 - a. descriptions of inter-personal perceptions (IPC, MPC, etc.)
 - b. descriptions of concepts
 - c. descriptions of actual co-workers
 - d. descriptions of group atmosphere
2. Measures of Assumed Similarity between Opposites. These are generally early questionnaires, used before the adoption of the Semantic Differential for this purpose.
3. Behavioral Differential and Social Distance scales
4. Post-Session Questionnaires
 - a. Behavior Description Questionnaires (BDQ)
 - b. Post-Meeting Questionnaires (PMQ)
 - c. Satisfaction Scales
5. Sociometric Rating Forms
6. Miscellaneous "one-shot" questionnaires. These are not included in this report.

The Semantic Differential

The Semantic Differential, developed by Osgood and his associates (see Osgood, Suci, and Tannenbaum, 1957), or variants of it have been major tools in GRL studies in recent years. The Semantic Differential is not so much a specific questionnaire as it is a generalizable technique which may be adapted to various research situations to measure the connotative meaning of stimuli.²

A Semantic Differential form consists of a stimulus and a set of scales bounded by antagonistic adjectives. The respondent assigns a location on

²Osgood and his associates have determined three major "dimensions of meaning"--evaluation, activity, and potency. Use of the Semantic Differential by the GRL has generally involved only the projection of stimuli on the evaluative dimension.

each scale to the stimulus by placing a check mark in the appropriate geometric position.

Two marked scales of an imaginary Semantic Differential might be:

MOTHER

love:: $\frac{-4}{+4}$: $\frac{\checkmark}{+3}$: $\frac{-}{+2}$: $\frac{-}{+1}$: $\frac{-}{0}$: $\frac{-}{-1}$: $\frac{-}{-2}$: $\frac{-}{-3}$: $\frac{-}{-4}$:: hate

good:: $\frac{\checkmark}{+4}$: $\frac{-}{+3}$: $\frac{-}{+2}$: $\frac{-}{+1}$: $\frac{-}{0}$: $\frac{-}{-1}$: $\frac{-}{-2}$: $\frac{-}{-3}$: $\frac{-}{-4}$:: bad

The particular bi-polar adjectives chosen, the number of scales, the number of scale positions, and the numbering of scales may be adapted for specific research purposes.

The Semantic Differential is generally scored by summing the numerical values of those points on the scales which have been checked by a respondent. For evaluative adjective pairs (such as those in the example above) it is conventional to assign higher numbers to the more favorable end of the scale.

The Semantic Differential has been applied to problems in attitude measurement, personality assessment, psycholinguistics, aesthetics, and inter-personal perception, among others.

Specific applications of the instrument in GERL projects are discussed below:

Inter-personal perception. This use of the Semantic Differential involves a hypothetical person as the stimulus. This person is rated on evaluative scales by the respondent. Of central concern in GERL research has been rating of subjects' hypothetical least-preferred co-worker (LPC) and most-preferred co-worker (MPC). LPC and MPC scores are derived by summing responses across evaluative scales. The Assumed Similarity between Opposites (ASo) score is a profile difference (D) score between descriptions of the LPC and MPC (Cronbach and Gleser, 1953). It has been found that LPC correlates between

.75 and .90 with ASo; thus the more easily derived LPC score has gradually replaced ASo as the central instrument of GRL research on leadership effectiveness.

LPC scores are interpreted as indicating the psychological distance which the leader maintains between himself and his co-workers. A high LPC leader holds his least-preferred co-worker in high esteem, and a low LPC leader tends to reject this hypothetical co-worker (Golb and Fiedler, 1955; Fiedler, 1958).

Studies using the Semantic Differential as a measure of inter-personal perception include:

Golb, Eileen F. and Fiedler, F. E. A note on psychological attributes related to the score Assumed Similarity between Opposites (ASo). T.R. No. 12, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1955.

Description: 20 items; 6-point scales.

Sample item: friendly-unfriendly.³ Obtained MPC and LPC, derived ASo.

Godfrey, Eleanor P., and Fiedler, F. E. Boards, management, and company success. T.R. No. 13, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1957.

Description: 20 items; 6-point scales.

Sample item: friendly-unfriendly. Obtained ratings of self, MPC, LPC, derived ASo.

Fiedler, F. E., Bass, A. R., and Fiedler, Judith M. The leader's perception of co-workers, group climate, and group creativity: a cross validation. T.R. No. 1, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1961.

Description: 20 items; 8-point scales.

Sample item: confident-not confident. Obtained MPC, L. did not use MPC.

Triandis, H. C., Mikesell, Eleanor, and Ewen, R. B. Some cognitive factors affecting group creativity. T.R. No. 5, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1962a.

³The sample item given is usually the first item of the questionnaire.

Description: Obtained LPC, MPC, derived ASo. Characteristics of instrument are not given.

Triandis, H. C., Mikesell, Eleanor H., and Ewen, R. B. Task set and attitudinal heterogeneity as determinants of dyadic creativity. T.R. No. 8, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1962b.

Description: 24 items; 8-point scales.

Sample item: not lonely-very lonely. Obtained LPC and MPC, derived ASo.

Anderson, L. R., and Fiedler, F. E. The effect of participatory and supervisory leadership on group creativity. T.R. No. 7, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1962.

Description: 17 items; 8-point scales.

Sample item: pleasant-unpleasant. Obtained LPC, MPC scores. Split-half reliabilities between .90 and .93. Discussed similarity of interpersonal perception scores to attitude scores. Same scales used to measure group atmosphere and to describe the group leader.

Meuwese, W. and Fiedler, F. E. Leadership and group creativity under varying conditions of stress. T.R. No. 22, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1965.

Description: 17 items; 8-point scales.

Sample item: pleasant-unpleasant. Obtained LPC and MPC.

Fiedler, F. E., Hackman, J. R., and Meuwese, W. A. T. Leader attitudes and group creativity under relaxed and stressful group conditions. Unpublished report, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 18 items; 8-point scales.

Sample item: pleasant-unpleasant. Obtained LPC and MPC. Ratings of self and ideal self also obtained.

Anderson, L. R. Some effects of leadership training on intercultural discussion groups. T.R. No. 18, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 10 items; 8-point scales.

Sample item: pleasant-unpleasant. Used same scale to measure group atmosphere, descriptions of leader and member behavior.

Fishbein, M., Landy, Eva, and Hatch, Grace. Some determinants of an individual's esteem for his least preferred co-worker: an attitudinal analysis. T.R. No. 21, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1965.

Description: 25 items; 8-point scales.
Sample item: pleasant-unpleasant. Obtained ratings on hypothetical "I" as group member, "My least preferred co-worker," and "The most effective leader."

Triandis, H. C., Fishbein, M., and Hall, Eleanor R. Person perception among American and Indian students. T.R. No. 15, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Triandis, H. C. and Hall, Eleanor R. Creative problem solving in culturally heterogeneous groups. T.R. No. 16, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 10 items; 9-point scales.
Scales were A and B scales taken from Fishbein and Raven (1962). 120 complex stimuli were rated. See this reference under discussion of the Behavioral Differential for a description of the stimuli.
NOTE: Triandis and Hall (1964) used this questionnaire as measure of interpersonal attitudes.

GERL projects not supported by CNR or ARPA using the semantic differential to describe interpersonal perceptions include:

Godfrey and Fiedler, 1957	McGrath, 1961
Fiedler, Dodge, and Jones, 1957	Fiedler and Hoffman, 1962
Steiner, 1959	McGrath, 1962
Fiedler, Meuwese, Oonk, 1960	McGrath and Julian, 1962
Alexander and Drucker, 1960	Julian and McGrath, 1963
Fiedler, London, and Nemo, 1961	Bass, Fiedler, and Krueger, 1964

Descriptions of concepts. Ss' evaluations of various concepts have been determined through use of the Semantic Differential. These studies include:

Triandis, H. C., Mikesell, Eleanor H., and Ewen, R. B. Some cognitive factors affecting group creativity. T.R. No. 5, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1962.

Description: 18 items; 7-point scales; 20 concepts.
Sample item: good-bad. Sample concepts: art, war, socialized medicine, immortality. 50 Ss were inter-correlated and factor analyzed across 360 Semantic Differential responses.

Anderson, L. R. Some effects of leadership training on intercultural discussion groups. T.R. No. 18, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 10 items; 7-point scales; 10 stimuli or concepts.
Sample items: cold-hot, strong-weak, good-bad.
Sample concepts: Marriage arranged by parents, blood.
Semantic Differential included adjectives reflecting activity and potency as well as evaluation.

Triandis, H. E. and Hall, Eleanor R. Creative problem solving in culturally heterogeneous groups. T.R. No. 16, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 10 items, 7-point scales.
Sample items: cold-hot, dishonest-honest.
Sample concepts: "cows," "the Indian caste system," "marriages arranged by parents," etc. Used to obtain a measure of cultural conservatism of Indian students and the favorability of American students toward the Indian value system.

GERL projects not supported by ONR or ARPA using the Semantic Differential to describe concepts include:

Mannheim, 1957	Myers, 1961
Steiner and Field, 1959	Naidoo and Fiedler, 1962
Bass and Fiedler, 1959	Fiedler and Hoffman, 1962
Fiedler and Bass, 1959	McGrath and Julian, 1962

Descriptions of actual co-workers. The Semantic Differential has also been used for obtaining descriptions of actual co-workers.

These studies include:

Triandis, H. C., Mikesell, Eleanor H., and Ewen, R. B. Task set and attitudinal heterogeneity as determinants of dyadic creativity. T.R. No. 8 Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1962.

Description: 6 items; 18-point scales.
Sample item: friendly-unfriendly. Used to measure (1) first impression of dyadic co-worker and (2) impression after joint work on creative task.

Anderson, L. R. and Fiedler, F. E. The effect of participatory and supervisory leadership on group creativity. T.R. No. 7, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1962.

Description: 17 items; 8-point scales.
Sample item: pleasant-unpleasant. Used for descriptions of leader by group members.

Anderson, L. R. Some effects of leadership training on intercultural discussion groups. T.R. No. 18, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 10 items; 8-point scales.

Sample item: pleasant-unpleasant. Each of three members rated other two on this scale. Same scale was used to obtain LPC and Group Atmosphere scores.

Triandis, H. C. and Hall, Eleanor R. Creative problem solving in culturally heterogeneous groups. T.R. No. 16, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 10 items of the form friendly-unfriendly, bad-good, efficient-inefficient. Size of scales not reported.

Projects not supported by ONR or ARPA using the Semantic Differential to describe actual co-workers include:

Myers, 1961
Naidoo and Fiedler, 1962
McGrath and Julian, 1962
Fishbein, 1963
Julian and McGrath, 1963

Descriptions of group atmosphere. The Group Atmosphere (GA) questionnaire is used at the conclusion of a group session to measure the subjective evaluation of the group experience by the members. The stimulus sentence is typically something approximating: "Describe the atmosphere of your group by checking the following items." A total score is obtained by summing across the items; a high score is presumably indicative of a pleasant experience by the subject in the group situation. The GA score has been used as a means of ordering the group-task situation along a dimension of favorableness to the leader (Fiedler, 1964). Studies using the Semantic Differential as a measure of the group atmosphere include:

Fiedler, F. E., Bass, A. R., and Fiedler, Judith M. The leader's perception of co-workers, group climate, and group creativity: a cross validation. T.R. No. 1, Urbana, Illinois: Group Effectiveness Research Laboratory. University of Illinois, 1961.

Description: 12 items; 8-point scales.

Sample item: friendly-unfriendly. Correlational analysis indicated the statistical independence of the GA score. Relation of GA to LPC and group creativity discussed.

Anderson, L. R. and Fiedler, F. E. The effect of participatory and supervisory leadership on group creativity. T.R. No. 7, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1962.

Description: 17 items; 8-point scales.

Sample item: pleasant-unpleasant. Same scales used to obtain LPC and leader description scores.

Meuwese, W. and Fiedler, F. E. Leadership and group creativity under varying conditions of stress. T.R. No. 22, Urbana, Illinois: Group Effectiveness Research Laboratory. University of Illinois, 1965.

Description: 17 items; 8-point scales.

Sample item: pleasant-unpleasant. Scores were factor analyzed with post-meeting questionnaire items.

Fiedler, F. E., Hackman, J. R., and Meuwese, W. A. T. Leader attitudes and group creativity under relaxed and stressful group conditions. Unpublished report, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 10 items; 8-point scales.

Sample item: pleasant-unpleasant. Items selected on basis of previous factor analyses and to be especially appropriate for description of groups under stress. Factor analysis of this scale with post-meeting questionnaire items indicated pure evaluative nature of GA.

Anderson, L. R. Some effects of leadership training on intercultural discussion groups. T.R. No. 18, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 10 items; 8-point scales.

Sample item: pleasant-unpleasant. Same scales used to obtain LPC scores and member descriptions.

Triandis, H. C. and Hall, Eleanor R. Creative problem solving in culturally heterogeneous groups. T. R. No. 16, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 10 items of the form: friendly-unfriendly, bad-good, efficient-inefficient. Size of scales not reported.

Projects not supported by ONR or ARPA using the Semantic Differential to obtain Group Atmosphere scores include:

Fiedler, London, and Nemo, 1961
Myers, 1961
McGrath, 1962
Fishbein, 1963
Julian and McGrath, 1963

Measures of Assumed Similarity between Opposites

In the late 1950's, the Semantic Differential became a major research instrument of the GEL, and was thenceforth the exclusive measure of interpersonal perceptions. However, research on leadership effectiveness by Fiedler and his associates had involved interpersonal perception scores (especially ASo) for some time. This section will present those questionnaires and techniques used to obtain ASo scores before the advent of the Semantic Differential.

Fiedler, F. E., Warrington, W. G., and Blaisdell, F. J. Unconscious attitudes as correlates of sociometric choice in a social group. T.R. No. 1, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1952.

Description: Subjects sorted 76 statements to describe self, ideal self, and other group members. Numerous interpersonal perception scores were derived and discussed.

Fiedler, F. E., Hartmann, W., and Rudin, S. A. The relationship of interpersonal perception to effectiveness in basketball teams. T.R. No. 3, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1952. (See also Fiedler, 1953.)

Description: A forced choice test consisting of 100 descriptive statements grouped into 20 blocks of 5. The blocks consisted of equally acceptable statements which were descriptive of different personality dimensions. Of the five statements, Ss would check the statement they considered most characteristic of the stimulus, and the one least characteristic. A sample item:

- a) I find it easy to understand others
- b) People think I am a hard worker
- c) I don't mind losing my temper when provoked
- d) I like people who don't worry about me
- e) People often look to me for leadership

Most	Least
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Ss rated self, ideal self, LPC, and MPC. Several interpersonal scores (including ASo) were derived and discussed.

Fiedler, F. E. Assumed similarity measures as predictors of team effectiveness in surveying. T.R. No. 1, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1953.

Description: Four identical 60-item questionnaires.

Sample item: "I am considered to be happy-go-lucky."
A 5 marked responses ranging from "definitely true" to "definitely false" on a 7-point scale. Several stimuli were used, and several assumed similarity scores were derived, including ASo.

Fiedler, F. E. The influence of leader-keymen relations on combat crew effectiveness. T.R. No. 9, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1954.

Description: 80 items of the form "I am often bored with people."

Ss predicted the responses of their MPCs and LPCs on a 6-point agree-disagree scale. ASo was derived. Split half reliability was .86.

Cleven, W. A. and Fiedler, F. E. The relation of open hearth foremen's interpersonal perceptions to steel production. T.R. No. 11, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1955.

Description: 40 items of the form "I tend to join many organizations."

Ss predicted the responses of their MPCs and LPCs on a 6-point true-untrue scale. ASo was derived.

Behavioral Differential and Social Distance Scales

The development and application of the Behavioral Differential to GERL research has taken place relatively recently (see Triandis, 1964). The Behavioral Differential is an adaption and refinement of Bogardus' (1928) Social Distance scale, with items of the general form:

MOTHER

Have a cocktail with:

would: 9 : 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : would not

The scale is administered and scored in a manner similar to the Semantic Differential. Current work on the Behavioral Differential concerns the isolation of stimulus, behavior, and subject factors, and the relation of the Behavioral Differential to the Semantic Differential and overt behavior.

Studies using the Behavioral Differential include:

Anderson, L. R. Some effects of leadership training on intercultural discussion groups. T.R. No. 18, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 8 complex stimuli; 17 behavior items; 9-point scales. Sample stimulus: A person who speaks broken English, an American, a fellow student, male, with very light-colored skin. Sample behavior item: invite this person to my club. Questionnaire taken from Triandis' Social Behavior Questionnaire (1964). Social distance scores were obtained for American and Indian Ss.

Triandis, H. C., Fishbein, M., and Hall, Eleanor R. Person perception among American and Indian students. T.R. No. 15, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Triandis, H. C. and Hall, Eleanor R. Creative problem solving in culturally heterogeneous groups. T.R. No. 16, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 128 complex stimuli; 20 behavioral items; 9-point scales. Sample scale: Go out on a date with this person. Sample stimulus: A Hindu with very dark colored skin, an Indian male who speaks excellent English and is a fellow student. Stimuli were characterized as to skin color, sex, occupation, and religion. All possible combinations of the above characteristics were used, though because of time limitations stimuli were partitioned into sets, and different Ss responded to different sets.

GERL projects not supported by ONR or ARPA using a type of social distance scale include:

Steiner, 1959

Post-Session Questionnaires

Post-Session Questionnaires fall into three general classes: (1) Behavior Description Questionnaires (BDQ), (2) Post-Meeting Questionnaires (PMQ) and (3) Satisfaction Questionnaires. Specific question format varies with the type of information desired and the preferences of the individual researcher.

Behavior Description Questionnaire (BDQ). The BDQ provides a means for assessing the in-session behavior of group members on a number of dimensions.

BDQs can be completed by group members themselves or by non-participating observers.

Studies using the BDQ include:

Meuwese, W. and Fiedler, F. E. Leadership and group creativity under varying conditions of stress. T.R. No. 22, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1965.

Description: 16 items of the form:

He prodded the group to complete the task:

:
: _____ : _____ : _____ : _____ : _____ :
: very true generally moderately somewhat not at all
: of him true of him true of him true of him true of him

Each S. rated all three members of the group (including himself) on this form, by placing the code letter for each member (A, B, or C) in the appropriate category. Responses to this questionnaire were factor analyzed, yielding two factors, called "Initiation of Structure" and "Consideration" after Hemphill (1949).

Fiedler, F. E., Hackman, J. R., and Meuwese, W. A. T. Leader attitudes and group creativity under relaxed and stressful group conditions. Unpublished report, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 20 items; 8-point scale, ranging from "very true" to "very untrue." Sample item: "He prodded the group to complete the task." Ss rated fellow members of the group. Responses were factor analyzed, and differences in factor structure between leaders and members were found.

Anderson, L. R. Some effects of leadership training on intercultural discussion groups. T.R. No. 13, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: Two types of BDQ were used in this study:
(1) 20 items; 8-point scale, ranging from "very true of him" to "not at all true of him." Sample item: "He did many things to make it pleasant to be a member of the group." Members used this form to describe leaders' behavior on "Consideration" and "Initiation of Structure" dimensions, taken from Halpin and Winer's (1957) factor analysis of Hemphill's Leader Behavior Questionnaire. The items were essentially restatements of 10 points of "Effective Intercultural Leadership Behaviors" which were included in a handout given to group leaders in a pre-session training period.

(2) 8 items; 8-point scale.

Sample Item: "He helped and encouraged the other group members." Ss rated fellow members of the group on these items.

GERL projects not supported by ONR or ARPA using a type of BDQ include:

McGrath, 1961
McGrath, 1962
McGrath and Julian, 1962
Fishbein, 1963

Post Meeting Questionnaire (PMQ). The PMQ provides a means by which general descriptions of the group-task situation can be obtained from Ss, and their reactions to their group experience assessed. Questions are usually of a general nature, though sometimes specific task- or manipulation-specific questions have been added to this instrument.

Studies using the PMQ include:

Anderson, L. R. and Fiedler, F. E. The effect of participatory and supervisory leadership on group creativity. T.R. No. 7, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 8 items; 5-point scale ranging from "extremely" to "not at all." Sample item: "How much did you enjoy being a member of this group?"

Triandis, H. C., Mikesell, Eleanor H., and Ewen, R. B. Task set and attitudinal heterogeneity as determinants of dyadic creativity. T.R. No. 8, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1962.

Description: 10 items; 18-point scale ranging from "very much" to "not at all." Items designed to indicate Ss' reaction to the experiment, how interested they were in the task, how well they felt they performed, etc. Sample item: "Did you enjoy being a member of this group?"

Meuwese, W. and Fiedler, F. E. Leadership and group creativity under varying conditions of stress. T.R. No. 22. Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1965.

Description: 13 items; 8-point scale ranging from "very much" to "not at all." Sample item: "Did you enjoy being a member of the group?" Responses of the PMQ and GA were factor analyzed for leaders and for members. Three leader factors

identified were: (a) acceptance, (b) hedonic tone, and (c) interpersonal security. Five member factors identified were: (a) hedonic tone, (b) task motivation, (c) friendliness of group, (d) interpersonal relations, and (e) acceptance.

Fiedler, F. E., Hackman, J. R., and Meuwese, W. A. T. Leader attitudes and group creativity under relaxed and stressful group conditions. Unpublished report, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 17 items; 8-point scale ranging from "very true" to "very untrue." Sample item: "This group worked very efficiently." The Questionnaire was factor analyzed.

Anderson, L. R. The effect of leadership training on intercultural discussion groups. T.R. No. 18, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 7 items; 8-point scale ranging from "very true" to "very untrue." Sample item: "How well did the chairman do his job?"

GERL projects not supported by ONR or ARPA using the PMQ include:

Alexander and Drucker, 1960
McGrath, 1961
McGrath and Julian, 1962
Julian and McGrath, 1962

Satisfaction Scales. These instruments measure the expressed satisfaction of members with the group, the task, or the performance of other members. The Group Atmosphere scale (GA) might be construed as a general type of satisfaction scale; however, it is presented in the section of this report dealing with the Semantic Differential.

Studies using a satisfaction scale include:

Fiedler, F. E., Hackman, J. R., and Meuwese, W. A. T. Leader attitudes and group creativity under relaxed and stressful group conditions. Unpublished report, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: Three 18-item checklists developed by Hulin (1962) measuring task satisfaction, leader satisfaction with members, and member satisfaction with leaders. Sample items: (task) "fascinating," (leader) "asks my advice," (members) "stimulating." Ss marked "Y" (yes) if the item were true

of the stimulus; "N" (no) if the item was untrue of the stimulus; and "?" if unsure. Favorable responses were scored 2, unfavorable responses were scored 0, and question marks were scored 1. Scores were summed to obtain single satisfaction scores for each of the three stimuli.

GERL projects not supported by ONR or ARPA using a type of satisfaction scale include:

Myers, 1961

Sociometric Questionnaires. Sociometric questionnaires in general ask the S to name or rank his co-workers on a scale reflecting personal evaluation, admiration of performance or attitude, or preference as a co-worker in some future activity. Interpretation of sociometric responses has varied considerably from study to study.

Studies using sociometric questionnaires include:

Fiedler, F. E., Hartmann, W. E., and Rudin, S. A. The relationship of interpersonal perception to effectiveness in basketball teams. T.R. No. 3, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1952.

Description: Ss listed the three other Ss with whom he could cooperate best and least well, and the two teammates he liked best and least.

Fiedler, F. E. The influence of leader-keyman relations on combat crew effectiveness. T.R. No. 9, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1954.

Description: (a) Ss listed 5 most preferred and 5 least preferred men in military platoon. (b) Ss ranked 7 men in their platoon for each of three situations: combat co-worker, leader, and personal friend.

Cleven, W. A. and Fiedler, F. E. The relation of open hearth foremen's interpersonal perceptions to steel production. T.R. No. 11, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1955.

Description: Each S nominated in order of preference 3 men for supervisory positions in production crews.

Godfrey, Eleanor P. and Fiedler, F. E. Boards, management, and company success. T.R. No. 13, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1957.

Description: 9 items of the form: "If you were unable to attend a company board meeting at which some highly important issues were to be decided and you could ask someone to vote for you, whom would you choose?" Items from both the interpersonal and the professional domain were included.

Anderson, L. R. and Fiedler, F. E. The effect of participatory and supervisory leadership on group creativity. T.R. No. 7, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1962.

Description: (a) Ss selected one or more members of his experimental group on each of three items: who could have done a better job as chairman, who would be preferred as a co-worker on a similar task in the future, and who would be preferred as a personal friend.
(b) 6 items, on which Ss selected peers in hypothetical situations of three types: combat co-worker, leader, and friend.

Meuwese, W. and Fiedler, F. E. Leadership and group creativity under varying conditions of stress. T.R. No. 22, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1965.

Description: (a) 4 items. Ss selected members on questions relating to influence in the experimental group and interpersonal preference. Primary score was number of choices received by leader.
(b) 3 items. S indicated the extent to which he enjoyed working with each other member of the experimental group.

Fiedler, F. E., Hackman, J. R., and Meuwese, J. A. T. Leader attitudes and group creativity under relaxed and stressful group conditions. Unpublished report, Urbana, Illinois: Group Effectiveness Research Laboratory University of Illinois, 1964.

Description: 5 items on which Ss selected co-workers in the experimental group. Items reflected group influence and interpersonal preference.

Anderson, L. R. Some effects of leadership training on intercultural discussion groups. T.R. No. 18, Urbana, Illinois: Group Effectiveness Research Laboratory, University of Illinois, 1964.

Description: 5 items on which Ss selected co-workers in the experimental group. Items reflected group influence and interpersonal preference.

GERL projects not supported by ONR or ARPA using sociometric type questionnaires include:

Fiedler, Dodge, and Jones, 1957
Mannheim, 1957
Godfrey, Fiedler, and Hall, 1959
Alexander and Drucker, 1960
Fiedler, Meuwese, and Conk, 1960

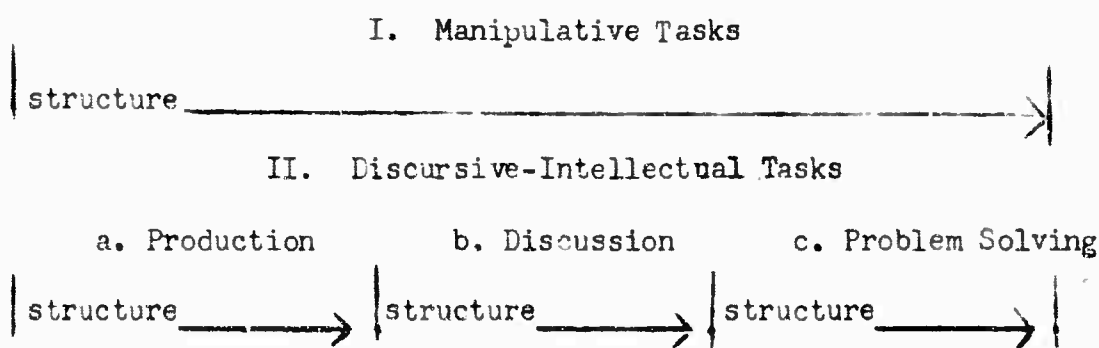
Kipnis, 1961
McGrath, 1961
McGrath, 1962
McGrath and Julian, 1962
Fishbein, 1963
Julian and McGrath, 1963

Section III: Tasks

Tasks from all major GERL projects (including those not supported by ONR or ARPA) are included in this section in order to make the compilation as complete as possible.

Tasks are arranged in two sections: manipulative tasks, and discursive-intellectual tasks. Within the discursive-intellectual section, tasks are further arranged by categories: (a) those calling for production of ideas, images, arrangements, and the like, called "production" type tasks; (b) those calling for a discussion of values or issues, usually with a requirement of group consensus, called "discussion" type tasks; and (c) those requiring that a solution to a specific problem be worked out, usually within a set of constraints, called "problem solving" type tasks. When, as is often the case, a task contains elements of more than one type, it is classified in the category judged to be most representative of its central purpose. Within each of the three categories (and within the manipulative section), tasks are arranged on a rough continuum of structure.

The arrangement of tasks is summarized in the diagram below:



Any descriptive information available for a particular task is presented with that task. Two pieces of information which are frequently available--and which we want brief explanation here--are the descriptive dimensions of Shaw (1963), and the Task Structure (TS) scores of Fiedler (1964).

Shaw Dimension Scores. Marvin Shaw (1963) has collected 104 diverse group tasks, and determined their scale values on each of 10 descriptive dimensions, using scaling procedures patterned after Thurstone and Chave (1929).

The ten dimensions are:

1. Cooperation requirements. The degree to which integrated action on the part of group members is required in order to complete the task.
2. Decision verifiability. The degree to which the "correctness" of the solution or decision can be demonstrated, either by appeal to authority, by logical procedures, or by feedback.
3. Difficulty. Amount of effort required to complete the task.
4. Goal clarity. The degree to which the requirements of the task are clearly stated or known to the group members.
5. Goal path multiplicity. The degree to which the task can be solved by a variety of procedures.
6. Intellectual-manipulative requirements. The ratio of mental requirements to motor requirements.
7. Intrinsic interest. The degree to which the task in and of itself is interesting, motivating, or attractive to group members.
8. Operational requirements. The number of different kinds of operations or skills required to complete the task.
9. Population familiarity. The degree to which the task is commonly encountered in the larger society; i.e., the probability that the members will have had prior experience with the class of tasks to which the task belongs.

10. Solution multiplicity. The degree to which there is more than one "correct" solution.⁴

When Shaw dimension scores are available for a task in the GERL collection, two scores are presented for each of the 10 dimensions. The first score is the scale value, which ranges from 1.0 to 8.0, with 8.0 representing the highest attainable value for any particular dimension; the second score is the Q value, or inter-quartile range, which is an index of the consistency with which a particular task was sorted on a particular dimension.

Fiedler Task Structure (TS) Scores. Fiedler (1964) has developed an operational definition of task structure (TS) based on four of the Shaw dimensions. These are: decision verifiability, goal clarity, goal path multiplicity (reversed scoring), and solution multiplicity (reversed scoring).

Many GERL tasks have been rated on these dimensions by three independent judges, with interjudge reliabilities ranging from .80 to .88. TS scores range from 1 to 8, with 8 representing high structure.

I. Manipulative Tasks

Task No. 1 Win games in high school basketball league competition

Used by: Fiedler, Hartman, and Rudin, 1952

Subjects: High school basketball team members from Central Illinois

Time limit: One season

Criterion: Proportion of league games won

Other information: Basketball teams used because of their high rate of interaction, the availability of adequate samples, and the availability of the effectiveness criterion.
TS = 7.2

⁴Shaw has factor analyzed these a priori dimensions, and on the basis of the factor analysis, selected six of the original dimensions for further development. These dimensions are difficulty, cooperation requirements, solution multiplicity, intellectual-manipulative requirements, intrinsic interest, and population familiarity.

Task No. 2 To load and heat open hearth steel furnaces with specified material and produce steel to rigid specifications in the shortest possible time

Used by: Cleven and Fiedler, 1955

Subjects: Open hearth steel crews

Time limit: Variable

Criterion: "Tap to tap" elapsed time or "heat time."
Also, two quality measures were obtained:
(a) an objective measure consisting of physical measurement of "heat," and (b) subjective measures consisting of ratings by the shop superintendent and his assistant on the quality of output of the crew.

Other information: TS = 7.2

Task No. 3 Accurately measure (survey) specified land parcels with surveying instruments and compute areas and distances

Used by: Fiedler, 1953

Subjects: Student surveying team members

Time limit: Not applicable

Criterion: Judgments of surveying instructors.
Instructors were asked to rank all teams in terms of (1) accuracy with which jobs were completed, (2) speed with which jobs were completed, and (3) congeniality of the teams.

Other information: TS = 7.3

Task No. 4 Locate by means of radar and obtain radar gun "acquisition" of unidentified aircraft, man equipment as quickly as possible when alerted, and maintain radar and gunnery gear

Used by: Hutchens and Fiedler, 1960

Subjects: Anti aircraft artillery crews

Time limit: Not applicable

Criterion: Speed of task performance, quality of task performance

Other information: TS = 7.3

Task No. 5 Hit, as accurately as possible, specified bomber targets by means of radar equipment

Used by: Fiedler, 1954

Subjects: B-29 bomber crews

Time limit: Not applicable

Criterion: (a) an error score indicating how far off target a particular bomb would fall; (b) a control time error--the number of minutes by which a plane would be too early or too late at a certain predetermined point of meeting; (c) accuracy of visual bombing

Other information: TS = 8.0
The three criterion scores are independent of one another.

Task No. 6 Move military tank from one target to another target as quickly as possible and hit a target with a main gun as quickly as possible

Used by: Fiedler, 1954

Subjects: Military tank crews

Time limit: Not applicable

Criterion: Travel time--the average travel time from target to target and time per hit--the average time in seconds for the crew to hit five assigned targets. A composite score was also derived.

Other information: TS = 8.0

Task No. 7 Golf competition

Used by: Meyers, 1962

Subjects: Schizophrenic psychiatric patients

Time limit: Not applicable

Criterion: Team performance (average number of strokes over par)

Other information: Two schizophrenic team members alternated shots using the same ball and set of clubs on a regulation golf course.

Task No. 8 Firing a .22 calibre rifle

Used by: Meyers, 1961

Subjects: Undergraduate volunteers

Time limit: Not applicable

Criterion: Distance, in eighths of an inch, between the outside edges of the subject's most dispersed rounds

Other information: Team scores were computed as the sum of individuals' scores. Each subject fired three rounds per session.

Task No. 9 The leader, without speaking, demonstrates how to disassemble and reassemble a .45 caliber automatic pistol. Following this, the two group members are given pistols and asked to disassemble and reassemble them.

Used by: Fiedler, research in progress. Referenced in Fiedler, 1965.

Subjects: Petty officers and recruits at a Belgian naval training center

Time limit: 10 minutes

Criterion: Number of errors made by the group members in disassembling and reassembling the pistols

Other information: This is a co-acting task.

II. Discursive-Intellectual Tasks

A. Production Type Tasks

Grouped as the first set of tasks in this section are a group of creativity tests developed by J. P. Guilford and his associates. They have often been used both as measures of individual creativity and as group tasks; the type of use is indicated for each study. The Guilford creativity tests have been used in GERL research by permission.

Task No. 10 Plot titles. This task requires Ss to think up as many clever titles for four short plots as possible. It is interpreted as a measure of originality in thinking.

Used by: Fiedler, Meuwese, and Oonk, 1960

Type of use: Groups

Time limit: 15 minutes

Criterion: Originality of titles

Other information: TS = 1.7
Reliability of criterion judgment: .69

Used by: Bass, Hatton, McHale, and Stolorow, 1962

Type of use: Individuals

Time limit: Not reported

Criterion: Responses were scored as either clever, non-clever, or irrelevant. Clever responses were scored as reflecting originality.

Other information: Inter-rater reliability was .64 for three raters.

Used by: Meuwese and Fiedler, 1965

Type of use: Individuals

Time limit: 12 minutes

Criterion: "Clever" responses scored according to Guilford et al, 1957.

Other information: Used as a pretest of creativity preceding group sessions.

Task No. 11 Alternative methods test. This test was devised by Guilford and his associates as a measure of individual originality in terms of conceptual foresight, i.e., the ability to evaluate logical antecedents and consequences. Ss devise as many different ways as possible of performing four tasks; e.g., how to count the number of people in a theater.

Used by: Fiedler, Meuwese, and Oonk, 1960

Type of use: Groups

Time limit: 15 minutes

Criterion: Each acceptable answer counted one point and the total number of points for all four subtasks constituted the score.

Other information: Inter-rater agreement for two judges was .75. The test was translated into Dutch for administration to these groups.

Task No. 12 Consequences. Similar in objectives to the other Guilford tests, this one requires Ss to list possible consequences of a set of stimulus situations.

Used by: Bass, Hatton, McHale, and Stolurow, 1962

Type of use: Individuals

Time limit: Not reported

Criterion: Responses were scored as either (a) remote (b) obvious (c) irrelevant. More remote responses were scored as reflecting higher originality. Exact scoring procedures are not reported.

Other information: Average corrected inter-rater reliability was .69.

Task No. 13 Unusual uses. This test has consistently loaded high on originality factors in studies by Guilford and his associates. It requires Ss to think of unusual uses for common objects, such as coat hangers or automobile tires. Specific stimulus objects are reported in descriptions of the studies below.

Shaw dimension scores for this task are:

<u>Dimension</u>	<u>Scale Value</u>	<u>Q Value</u>
Cooperation requirements	3.04	1.89
Decision verifiability	2.77	2.27
Difficulty	2.50	3.43
Goal clarity	5.75	2.85
Goal path multiplicity	6.42	1.80
Intellectual-manipulative requirements	6.35	2.20
Intrinsic interest	4.73	3.58
Operational requirements	3.93	3.60
Population familiarity	5.25	2.87
Solution multiplicity	6.21	2.01

Used by: Anderson and Fiedler, 1962

Type of use: Individuals and groups

Instructions: Think of unusual uses for two common objects: a wire clothes hanger and a ruler.

Time limit: Not reported

Criterion: Each response was scored from one point (frequent response) to five points (unusual, off-beat, or infrequent response), based on a frequency distribution of the occurrence of all the responses produced by all thirty experimental groups. A repetition was scored as zero.

Other Information: "Clothes hanger" uses correlate .70 with "ruler" uses in total criterion score. Score is interpreted as qualitative rather than quantitative.

Used by: Bass, Hatton, McHale, and Stolorow, 1962

Type of use: Individuals

Instructions: Not reported

Time limit: Not reported

Criterion: Uses judged as "acceptable" were counted.

Other Information: Reliability of criterion judgments: .90

Used by: Meuwese and Fiedler, 1965

Type of use: Individuals

Instructions: Think of all unusual uses possible for six common items. Example: automobile tire

Time limit: 5 minutes for each part

Criterion: Not reported

Other information: Used as test of individual creativity prior to group interaction.

Task No. 11

Thematic Apperception Test (TAT). In typical GERR usage, a card from the TAT is presented to the experimental subject or group with the instructions to "Write a story about this picture." The stories are usually evaluated on scales of "originality" or "creativity." TS for such tasks is 1.7. Copies of TAT card 11 (Dragon in Ravine) are on file at GERR.

Used by: Fiedler, Meuwese, and Jonk, 1960

Type of use: Groups

Instructions: Devise three original stories.

Time limit: 20 minutes

Criterion: Judged originality of title, plot, subject matter; story elaboration, structure, cohesiveness; expressiveness of writing; humor; suspense.

Other information: Reliability of criterion judgments: .81 and .88, cards 11 and 19 respectively

Used by: Fiedler, London, and Nemo, 1960

Type of use: Groups

Instructions: Devise three original stories.

Time limit: 15 minutes

Criterion: Judged originality of title, originality of plot, coherence and structure of plot, elaboration of plot, sentence structure, expressiveness of language, suspense, humor.

Other information: Reliability of criterion judgments: .92, .94, .96. Used cards 17 GF (Girl on the Bridge), 11 (Dragon in the Ravine), and 19 (Ice-covered House Against Threatening Clouds). TAT card 17 yielded higher criterion scores than did cards 11 or 19.

Used by: Anderson and Fiedler, 1962

Type of use: Individuals and groups

Instructions: Devise two original stories.

Time limit: 15 minutes

Criterion: Judged originality of title, originality of plot, elaboration of plot, expressiveness of language, suspense, and humor.

Other information: Average reliability of criterion judgments: .72. TS = 2.4. Used card 11. TAT was used partly as a "marker variable" and partly as a measure of creativity.

Used by: Bass, Hatton, McHale, and Stolorow, 1962

Type of use: Individuals

Instructions: Devise three stories.

Time limit: 15 minutes

Criterion: Scoring manual developed by Fiedler, Meuwese, and Oonk, 1960

Other information: Reliability of criterion judgments: .88 and .50 for cards 11 and 17 GF

Used by: Anderson, 1964

Type of use: Groups

Instructions: Write two original stories which are different from each other.

Time limit: 20 minutes

Criterion: Originality of title, originality of plot, plot elaboration, plot structure, sentence structure, expressiveness, suspense, and humor.

Other information: Average reliability of criterion judgments: .95. Used card 11. Task used primarily as a "marker variable."

Task No. 15 Write a story using all of five given words. (The five words were selected at random from the following list: church, sex, art, school, integration, birth control, classical musicians, socialized medicine, federal aid to education, Soviet Russia, divorce, immortality, army, science, religion, labor unions, evolution of the species, Supreme Court, Negro.)

Used by: Triandis, Mikesell, and Ewen, 1962a
Triandis, Bass, Ewen, and Mikesell, 1962

Subjects: Undergraduate males

Time limit: Not reported

Criterion: Judged originality, practicality, and creativity.

Other information: Inter-judge reliability for the creativity dimension was .90.

Task No. 16

The local schools have instituted a policy of starting each day's class in primary grades (children of 6, 7, and 8) with a short prayer. Children of your church members cannot understand why their parents object to this practice and why they discourage participation in this class activity. You have been asked to compose a statement which will explain and justify the parents' position to the children.

Used by: Fiedler, Hackman, and Meuwese, 1964

Subjects: Participants in a Unitarian Leadership Training Conference in Toronto, Canada

Time limit: 35 minutes

Criterion: Judged quality of written group products. Each product was rated on (a) appropriateness for an intended age group, (b) adequacy of the content for the stated purpose, (c) quality and clarity of expression, (d) amount of elaboration, (e) overall creativity and originality, and (f) overall rating of the quality of the product.

Other information: Median inter-rater reliability was .64.
TS = 2.2

Task No. 17

Your committee has been instructed to compose a fable or story for 8 to 10 year old children which clearly shows the need for a large army in peacetime. The fable or story must be clear to these young children, and as interesting and as original as possible. Your main points should be that a trained land army is the most important element in the protection of a country even when it is not engaged in a major war.

Used by: Meuwese and Fiedler, 1965

Subjects: Undergraduate ROTC cadets

Time limit: 25 minutes

Criterion: Two scores were derived: fable quality score, and a score reflecting the judged quality of the title.

Other information: TS = 2.2 Shaw dimension scores are:

<u>Dimension</u>	<u>Scale Value</u>	<u>Q Value</u>
Cooperation requirements	4.27	2.59
Decision verifiability	0.74	1.76
Difficulty	5.28	3.48
Goal clarity	4.44	3.93
Goal path multiplicity	7.23	1.82
Intellectual-manipulative requirements	7.09	2.42
Intrinsic interest	4.94	3.29
Operational requirements	5.61	3.08
Population familiarity	4.61	3.43
Solution multiplicity	7.39	0.62

Task No. 18 Your group has been asked by this conference to write a short Sunday School parable (of no more than 250 words) for 6 to 8 year olds to illustrate the desirability of the doctrine of separation of church and state.

Used by: Fiedler, Bass, and Fiedler, 1961

Subjects: Participants at a Unitarian Leadership Conference

Time limit: 30 minutes

Criterion: Ratings by all experimental subjects of the quality of other groups' solutions

Other information: TS = 2.2

Task No. 19 Prepare a three-minute skit for presentation dramatizing the need for improving the music in the worship service of your church.

Used by: Fiedler, Bass, and Fiedler, 1961

Subjects: Participants at a Unitarian Leadership Conference

Time limit: 30 minutes

Criterion: Ratings by all experimental subjects of the skit or presentation of each group

Other information: TS = 2.2

Task No. 20 Write a short fable for 8 to 10 year old children to illustrate the problem faced by a mental patient who returns to his community after several years of hospitalization.

Used by: Fiedler, Hackman, and Meuwese, 1964

Subjects: Participants in a mental health conference

Time limit: 20 minutes

Criterion: Judged quality of written group products.

Other information: Median intercorrelation for judges' ratings of creativity was .84.

Task No. 21 Compose a letter to young men of 16 and 17 years, urging them to choose the Belgian Navy as a career.

Used by: Fiedler, research in progress. Referenced in Fiedler, 1965.

Subjects: Petty officers and recruits at a Belgian naval training center

Time limit: 35 minutes

Criterion: Judged interest value, originality, persuasiveness, stylistic excellence.

Other information: Some of the letters were written in Dutch and some in French. Quality was judged by Dutch and French speaking judges, with respective reliabilities of .92 and .86.

Task No. 22 Your conference has recommended that all elementary public schools be made available for approved mental health research by university students. Your committee has been asked to write a strong statement justifying this position.

Used by: Fiedler, Hackman, and Meuwese, 1964

Subjects: Participants in a mental health conference

Time limit: 25 minutes

Criterion: Judged quality of written group products.

Other information: TS = 2.8
Inter-rater reliability for criterion judgments was .86.

Task No. 23 The local Congregational church is sponsoring a series of programs on various religious faiths. You have been asked to prepare the part of these programs which represents the Unitarian-Universalist viewpoint. Write material on "what we believe" in a form suitable for 8 to 10 year old children of all faiths.

Used by: Fiedler, Hackman, and Meuwese, 1964

Subjects: Participants in a Unitarian Leadership Conference in Toronto, Canada

Time limit: 20 minutes

Criterion: Judged quality of written group products. Products were rated on the dimensions presented in the discussion of Task No. 16.

Other information: Inter-rater reliability for criterion judgments was .64.

Task No. 24 Recognizing the urgent need for training additional ministers, each congregation has been asked to collect funds for the purpose of defraying scholarship and training costs for worthy students who plan to enter the ministry. The minister and your board consider this project very important and would like the best possible response from the congregation. Your group has been appointed to make an especially strong appeal to the congregation for collecting these funds.

Used by: Fiedler, Bass, and Fiedler, 1961

Subjects: Participants at a Unitarian Leadership Conference

Time limit: 30 minutes

Criterion: Ratings by all experimental Ss of quality of other groups' solutions

Other information: TS = 3.2

Task No. 25 Your committee has been appointed to write a brief proposal that the ROTC program benefits be standardized. The proposal is to be submitted to Joint Chiefs of Staff. The proposal should recommend the fair and equitable implementation of this policy, without exceeding the total of currently available funds for ROTC training, and justifying the recommendation as convincingly as possible.

Used by: Meuwese and Fiedler, 1965

Subjects: Undergraduate ROTC cadets

Time limit: 25 minutes

Criterion: Two performance scores were derived and intercorrelated: (1) judged proposal quality, and (2) judged proposal quantity; i.e., the number of words in the proposal.

Other information: TS = 3.4 Shaw dimension scores are:

<u>Dimension</u>	<u>Scale Value</u>	<u>Q Value</u>
Cooperation requirements	3.83	2.68
Decision verifiability	0.84	1.88
Difficulty	4.36	3.17
Goal clarity	4.56	3.76
Goal path multiplicity	7.16	2.04
Intellectual-manipulative requirements	7.18	1.86
Intrinsic interests	4.50	3.38
Operational requirements	5.04	2.27
Population familiarity	4.62	2.76
Solution multiplicity	7.21	1.46

Task No. 26

It has been proposed to purposely make military training maneuvers very hard and dangerous, even to the point of causing large numbers of deaths among the recruits in order to reduce casualties during actual combat. You are to take a "yes" or "no" position on this proposal, and then give as many pro and contra arguments for the theme as you can think of.
(paraphrase of actual task)

Used by: Anderson and Fiedler, 1962

Subjects: Undergraduate NROTC cadets

Time limit: 10 minutes

Criterion: Ratings of quality, originality of arguments

Other information: TS = 4.2 Shaw dimension scores for this task are:

<u>Dimension</u>	<u>Scale Value</u>	<u>Q Value</u>
Cooperation requirements	4.28	2.74
Decision verifiability	1.50	1.85
Difficulty	5.19	3.93
Goal clarity	4.32	3.47
Goal path multiplicity	7.06	2.34
Intellectual-manipulative requirements	7.02	2.54
Intrinsic interest	5.23	2.09
Operational requirements	5.50	2.51
Population familiarity	4.07	2.95
Solution multiplicity	7.36	0.66

Task No. 27

Fame and immortality. This task was developed by H. C. Triandis and his associates (1962a). Subjects or groups respond to the question: "How can a person of average ability achieve fame and immortality though he does not possess any particular talent?"

TS for this task is 4.7. Shaw dimension scores are:

<u>Dimension</u>	<u>Scale Value</u>	<u>Q Value</u>
Cooperation requirements	3.92	3.09
Decision verifiability	2.05	2.44
Difficulty	3.42	3.40
Goal clarity	4.31	3.59
Goal path multiplicity	6.50	1.87
Intellectual-manipulative requirements	6.46	1.92
Intrinsic interest	5.11	2.56
Operational requirements	5.31	3.76
Population familiarity	4.42	3.51
Solution multiplicity	7.06	1.78

Used by: Anderson and Fiedler, 1962

Type of use: Groups

Instructions: The group was to write down as many solutions as it could think of. Following this, they read their solutions aloud to each other and composed a group sheet of solutions which had not already been proposed on their individual sheets.

Time limit: 5 minutes for the first part of the task; 5 minutes for the second part

Criterion: The greater the number of different solutions that were written, the higher the score

Used by: Triandis, Mikesell, and Lwen, 1962a, 1962b
Triandis, Bass, Ewen, and Mikesell, 1962

Type of use: Individuals and groups

Instructions: Each member of each group wrote down as many solutions to the problem as he could think of, and then chose the best of the solutions.

Time limit: Individuals--12 minutes to write as many solutions as possible and 3 minutes to choose the best solution. Groups--15 minutes to produce solutions and 5 minutes to choose the best solution

Criterion: Rated creativity of the solutions. Raters were trained to give a large weight to the unusualness of the responses and a small weight to their practicality.

Used by: Anderson, 1964
Triandis and Hall, 1964

Type of use: Individuals

Instructions: Standard

Time limit: 12 minutes

Criterion: Judged originality and creativity.

Other information: Used as a pretest of individual creativity.

Task No. 28

The editor of a high school newspaper is tired of writing stories about the usual dull activities. To liven up the paper, he enlists the aid of a gang of cohorts asking them to do something unusual inside or in the immediate vicinity of the school building that will provide the material for a sensational story. How many things can you think of that the cohorts might do to give him such a story?

Used by: Triandis, Mikesell, and Lwen, 1962b

Subjects: University of Illinois undergraduate males

Time limit: Not reported

Criterion: Judged originality, practicality, and creativity of the written solution.

Other information: Inter-rater reliability for criterion judgments: .85

Task No. 29 A church has completed about two-thirds of its new building when it runs out of money. It is located in a black-listed area in terms of credit. List ways that the church can find money to complete the building.

Used by: Triandis, Midesell, and Ewen, 1962a, 1962b
Triandis, Bass, Ewen, and Mikesell, 1962

Subjects: University of Illinois undergraduate males

Time limit: 12 minutes to write as many solutions as possible, and 3 minutes to choose the best solution

Criterion: Judged creativity. Raters were trained to give large weight to the unusualness of the responses and a small weight to their practicality.

B. Discussion Type Tasks

Task No. 30 "Discuss the desirability of desegregating public schools."
In order that the discussion would not be one sided, Ss were urged to take account of the points of view held by: a typical Southern segregationist; a typical Northern minister, priest, or rabbi; and a typical member of the National Association for the Advancement of Colored People.

Used by: Steiner and Field, 1959

Subjects: University undergraduates

Time limit: 15 minutes

Criterion: This was not a study of group effectiveness per se; thus no effectiveness criteria were collected.

Other information: The bulk of the analyses are concerned with paper and pencil measures of member popularity, deviance, and change in attitudes as affected by role assignment.

Task No. 31 Bob Johnson, a junior at a large midwestern university, is the son of a physician. Bob's closest friend, George Marion, is under the care of Bob's father. Bob has found out that George is incurably ill with cancer. Both Bob and George are in love with the same girl, Ellen Brown. George doesn't know what kind of disease he has nor does Ellen have any idea that he is ill. One night, Bob called on Ellen just after he decided to give up his studies and accept a job in California. He intended to ask

her that night to marry him and go with him to California. Bob knew that for many years Ellen has wanted to go to live in California. But before Bob got a chance to tell her of his plans and to propose, Ellen announced her engagement to George. What should these people do? What decisions should they reach and how should they carry them out?

Used by: Alexander and Drucker, 1960

Subjects: University undergraduates

Time limit: 20 minutes

Criterion: This study was primarily an investigation of interpersonal perception. Group effectiveness measures per se were not derived.

Other information: Shaw dimension scores are:

<u>Dimension</u>	<u>Scale Value</u>	<u>Q Value</u>
Cooperation requirements	3.45	2.79
Decision verifiability	0.91	1.80
Difficulty	4.36	3.89
Goal clarity	4.44	4.38
Goal path multiplicity	7.23	1.64
Intellectual-manipulative requirements	7.30	1.00
Intrinsic interest	7.02	3.14
Operational requirements	4.95	3.25
Population familiarity	5.55	3.34
Solution multiplicity	7.26	1.28

This task was adapted from Festinger and Hutte, 1964.

Task No. 32

A local physician who is not a member of the church told your minister, in the course of a cocktail party, of his intention to commit a mercy killing. The case involved a four-year-old child suffering from leukemia. Although the minister was, of course, aware that euthanasia is against the law, he neither counseled the physician against it, nor did he take any steps to prevent it. The case has now come to court and the minister has been indicted as being an accessory after the fact. The congregation has voted to back the minister and has appointed you as a committee to prepare a statement of not more than 250 words justifying the congregation's position.

Used by: Fiedler, Bass, and Fiedler, 1961

Subjects: Participants at a Unitarian Leadership Conference

Time limit: 30 minutes

Criterion: Rating by all experimental subjects of quality of other groups' solutions

Other information: TS = 2.7

Task No. 33 (See Task No. 40 for descriptive information.)

Title: Depressed areas legislation

Full employment is typical in most of the United States but there are a number of areas which are suffering from unemployment. This is often due to technological changes such as automation, the depletion of certain mines, the substitution of synthetics for the products of mines, etc. In those areas where unemployment is high, the population is undernourished and generally does not share in the "better things of life" that most Americans have. One solution to this problem is to have federal aid extended to these areas in the forms of loans, grants, etc. Another solution is to help the unemployed acquire new skills so that they may be employed in industries where there is a shortage of labor. Finally, another point of view is that the government should do nothing, but simply let the individuals involved find their own solution. Write less than 250-300 words (about one page) outlining your recommendations concerning possible legislation on this problem.

Task No. 34 (See Task No. 40 for descriptive information.)

Title: Federal aid to education

The number of students who are in high school is now much larger than it was five years ago. Furthermore, recent statistical studies show that the per cent of high school population that goes to college is increasing. Thus, in the 1960's there will be tremendous increases in the applications for college enrollment. More classrooms and laboratories and more college teachers will be required. However, the number of people who are now in graduate schools, preparing for teaching careers, is smaller than it was in the past. To make matters worse, industry is more and more interested in hiring persons with PhD's and is willing to start them at as high as \$10,000 per year while most full professors around the country do not make that much money. Because of the law of the supply and demand, academic salaries will have to double in the next ten years. Colleges and universities around the country are now faced with increased expenditures both for salaries and building while their income is not likely to increase very much. The fees paid by the students usually take care of only from 10 to 30 per cent of the total cost of running the university. Where is the extra revenue going to come from? One school of thought says that the federal government should provide the extra money. Another school of thought is opposed to federal aid to education on the grounds that this would lead to government control of higher education.

Write less than 250-300 words outlining your recommendations concerning possible legislation on this problem.

Task No. 35

(See Task No. 40 for descriptive information.)

Title: How to set up a Peace Corps

Many experts consider it very important that we should maintain the non-commitment of those nations that are not now controlled by the Communists. This is because our strategic position cannot be maintained if the Communists get control of these areas. Furthermore, our need for raw materials has increasingly been met by materials from abroad. Several proposals, ranging from increases in foreign aid to the establishment of a Peace Corps have been made to deal with this problem. The latter proposal would send young college graduates to underdeveloped countries as teachers and technical advisors. The law that would establish this Corps will be debated in Congress soon. Some supporters of the law want to exempt students from military service if they join the Peace Corps; other say this is unwise. Furthermore, it is necessary to spell out exactly what the Peace Corps would do to help the countries to which it is sent. Write 250-300 words outlining the details for the law establishing the Peace Corps.

Task No. 36

(See Task No. 40 for descriptive information.)

Title: Medical care

Statistical studies of medical care have shown that its cost is going up much faster than the income of the average citizen of this country. This is due in part to improvements in medical technology. Thus, although this country has the best medicine in the world, this medicine is available to an increasingly smaller number of individuals. One school of thought on this matter urges Congress to pass legislation which would create the conditions which would permit every citizen, regardless of his financial condition, to enjoy the best medical care available. The current proposal of federal aid for the medical care of the aged is the first step in this direction. The opposing school of thought takes the position that this is a field in which the federal government should have no role. People holding this latter view may accept some legislation concerning medical care of the aged but oppose any significant changes in the existing programs. Write less than 250-300 words (about one page) outlining your recommendations concerning the possible legislation on this problem.

Task No. 37

(See Task No. 40 for descriptive information.)

Title: Corrupt labor unions

Evidence presented on one of the Congressional committees in recent years indicates that some unions are led by corrupt leaders who take advantage of their positions to utilize union funds for personal purposes. It has been suggested that Congress should pass legislation that would protect the union members against their own leaders. This view is opposed by the majority of labor leaders, who claim that most unions are led by honest men and that it would be better to let the labor movement as a whole apply sanctions to the few leaders who are corrupt than to induce a system of controls that would decrease the freedom of the operation and the independence of the labor unions. Write less than 250-300 words (about one page) outlining your recommendations concerning possible legislation on this problem.

Task No. 38

(See Task No. 40 for descriptive information.)

Title: How can we spend 40-50 billion dollars?

It is conceivable that in the next few years, we will come to an agreement with Russia on controlled disarmament. Assume that this has happened. The problem now is how to spend the 45 billion a year that we are now spending for armaments. Some people have suggested that we turn this money into foreign aid; however, the experts in this field say that the underdeveloped countries cannot possibly absorb more than 6 billion a year. Some people say that we can use it at home to improve schools, roads, etc. (the money is enough to build 13 four-lane highways from coast to coast every year. There is not one such highway in operation now.) However, if we stop arming, about 8 million people will be out of a job and their skills involve the construction of machines and not roads. Some people say we should simply reduce taxes; but economists say if this were done, about 10 billion a year would be pulled out of the economy (that is, only 35 of the 45 billion would be converted into consumer goods or be invested into production capacity) and this would cause a depression, so we must have an imaginative program of social legislation that will permit the government to spend 45 billion dollars a year wisely. Write about a page outlining such a program.

Task No. 39

(See Task No. 40 for descriptive information.)

Title: School segregation

In 1954, the Supreme Court ruled that school segregation on the basis of race was unconstitutional and should be stopped as soon as possible. Since then, some progress has been made

in the direction of school integration in those regions of the country where segregated schools still exist, but in the majority of the states in the Deep South, no progress is in evidence. One school of thought holds that Congress should pass legislation that would implement the decision of the Supreme Court. Another school of thought holds that Congress should amend the Constitution to make segregation unconstitutional. Many other positions are also expressed that advocate moderate steps toward integration. Write less than 250-300 words (about one page) outlining your recommendations concerning possible legislation on this problem.

Task

Task No. 40

Title: The housing bill

Recent surveys have shown that there is a great need for slum clearance and low cost housing in this country. A report sent to President Kennedy recommends that a 750 million dollar program be established and run by a department of Housing and Urban Development. At the present time, the federal government is supporting the expansion of housing in this country through the Federal Housing Administration (FHA), which guarantees the banks who make loans to individual home owners that they will not lose their money. Mass housing projects which have been developed elsewhere in the country are aided greatly by the FHA. However, most of the builders refuse to sell houses to members of the minority groups, even though these groups are the ones that are most in need of low-cost FHA supported housing. The builders say that if they are required by law to sell their houses to customers regardless of race, color, or creed, they will lose most of their customers; and this will lead to an increase in the unit cost for housing. It is also known that the lower classes in this country are the most prejudiced group, so that it is probably true that they will not buy houses in integrated projects unless some imaginative scheme is adopted by the federal government. Write 250-300 words outlining the kind of scheme that could be used.

Used by: Triandis, Mikesell, and Ewen, 1962a
Triandis, Bass, Ewen, and Mikesell, 1962

Subjects: University of Illinois undergraduate males

Time limit: 30 minutes

Criterion: Judged originality, practicality, and creativity. Judgments were made using Thurstone's successive intervals procedure (Edwards, 1957) to obtain indices of creativity on an equal interval scale.

Other information: These tasks were run during the summer of 1961 when President Kennedy's legislative program was beginning to take shape. The topics used involved legislation that was being debated in the press at that time. Inter-judge reliability for criterion judgments was .85.

Sk No. 41

Recently legislation has been proposed to encourage public schools in the State of Illinois to adopt the New Testament as a basic reading text for upper elementary grades (4th, 5th, and 6th grades). The purpose of the legislation would be to insure high literary and moral quality in the content of reading lessons, not to teach religion. Opponents of the bill have questioned the wisdom and legality of this legislation. Your task as a committee is to consider and discuss this problem as representatives of your religious foundations and to develop a set of recommendations to be adopted as the official policy of the combined campus religious organizations. Each of you has received additional background materials on this problem which reflect the views of the foundation which you represent.

You will have 25 minutes to discuss and decide upon your recommendations and 5 more minutes to record them upon the attached form. The recommendations must be adopted unanimously by all four members of this committee.

Used by: McGrath and Julian, 1962
Julian and McGrath, 1963

Subjects: One member each from the Southern Baptist, Newman (Catholic), and Unitarian Student Foundations at the University of Illinois campus, plus one graduate student who served as leader. Subjects were volunteers.

Time limit: 25 minutes

Criterion: Acceptability of the group solution as judged by one clergyman from each of the participating foundations. Also, constructiveness was rated by the experimenters. A final score of "success" was obtained by multiplying the acceptability rating times the constructiveness rating.

Other information: This and the tasks to follow were selected for the particular subjects used on the basis that one of the three participating foundations would be in the minority on each of the three tasks. Shaw dimension scores are:

<u>Dimensions</u>	<u>Scale Value</u>	<u>Q Value</u>
Cooperation requirements	4.94	2.41
Decision verifiability	0.79	1.58
Difficulty	4.94	3.71
Goal clarity	4.28	3.67
Goal path multiplicity	7.23	1.82
Intellectual-manipulative requirements	7.18	1.58
Intrinsic interest	5.56	2.85
Operational requirements	5.45	2.62
Population familiarity	5.69	2.67
Solution multiplicity	7.21	1.26

Task No. 42

President Kennedy has recently submitted to Congress a program for federal aid to education, to be administered by the states, in the form of funds for scholarships, construction of facilities, transportation, and teachers' salaries. The President's plan would exclude federal aid to parochial or other private schools. Leading members of Congress, as well as representatives of certain religious groups, have insisted that the bill should permit some form of federal aid for parochial schools. Your task as a committee is to consider and discuss these problems as representatives of your religious foundations, and develop a set of recommendations to be adopted as the official policy of the combined campus religious organizations. Each of you has received additional background materials on this problem which reflect the views of the foundation which you represent.

You have 25 minutes to discuss and decide upon your recommendations, and 5 more minutes to record them on the attached form. The recommendations must be adopted unanimously by all four members of this committee.

Used by: McGrath and Julian, 1962
Julian and McGrath, 1963

Subjects: (See Task No. 41 above.)

Time limit: (See Task No. 41 above.)

Criterion: (See Task No. 41 above.)

Other information: Shaw dimension scores are not available for this task.

Task No. 43

The recent television scandals (the so-called "rigged" quiz shows and "payola" practices) have resulted in proposed legislation to increase the power of the Federal Communications Commission (FCC) to control television programming. The aim

of the legislation is to improve the educational and moral quality of the material offered on television, with the specific emphasis on limiting violence in children's programs, deceitful practices (liked "rigged" quiz shows) and obscenity. The proposed legislation would permit the FCC to refuse or revoke licenses, levy fines, and take other measures against any TV station, network, or producer whose material did not live up to a standard ethical and moral code. Many groups are opposing the legislation on the grounds that such censorship is restriction of the right of freedom of speech. Your task as a committee is to consider and discuss this problem as representatives of your religious foundations, and to develop a set of recommendations to be adopted as the official policy of the combined campus religious organizations. Each of you has received additional background materials on this problem, which reflect the views of the foundation which you represent.

You will have 25 minutes to discuss and decide upon your recommendations and 5 more minutes to record them on the attached form. The recommendations must be adopted unanimously by all four members of this committee.

Used by: McGrath and Julian, 1962
Julian and McGrath, 1963

Subjects: (See Task No. 41 above.)

Time limit: (See Task No. 41 above.)

Criterion: (See Task No. 41 above.)

Other information: Shaw dimension scores are:

<u>Dimension</u>	<u>Scale Value</u>	<u>Q Value</u>
Cooperation requirements	4.94	2.52
Decision verifiability	0.84	1.88
Difficulty	5.30	3.37
Goal clarity	4.06	3.97
Goal path multiplicity	7.18	2.04
Intellectual-manipulative requirements	7.18	1.72
Intrinsic interests	5.50	3.53
Operational requirements	5.39	3.00
Population familiarity	5.55	2.80
Solution multiplicity	7.21	1.46

Task No. 44 The group is presented with a problem which involves new members who do not share the original congregation's beliefs. "Your group meets in a state of apprehension and anxiety to discuss this problem."

Used by: Fiedler, Bass, and Fiedler, 1961

Subjects: Participants at a Unitarian Leadership Conference

Time limit: Not reported

Criterion: Not reported

Other information: This task is not discussed in the technical report of this study, and its original text is not available.

C. Problem Solving Tasks

Task No. 45 The Unitarian Church has appointed a chairman of an action committee to prepare a plan for integrating a large community housing project. The chairman has two committee members (or "outside experts") who have the roles of a social scientist and a local political leader. The task involves preparation of a plan of action after listening to the opinions and facts presented by the experts. This is an "interdisciplinary" task; i.e., each member held specialized information not available to the other members, which was essential for successful completion of the task.

Used by: Hackman and Jones, 1964

Subjects: Participants at a Unitarian Leadership Training Conference in Toronto, Canada

Time limit: 40 minutes

Criterion: Judged quality of the written group products. Products were ranked by the Toronto subjects and later rated by a panel of three judges.

Other information: Median inter judge reliability for criterion judgments was .64. The separate ratings were weighted and combined into a single criterion. TS = 3.1. No formal report exists for this section of the "Toronto" study; only a progress report which includes as an appendix a complete description of the tasks and the quite detailed information summaries held by the separate group members.

Task No. 46 Preside over monthly board of director's meetings of farm supply cooperatives. Decide on routine personnel and policy matters and occasionally on major policy questions and/or personnel changes.

Used by: Godfrey and Fiedler, 1957

Subjects: Board presidents of farm supply cooperatives

Time limit: 3 years

Criterion: Net income and operating efficiency

Other information: TS = 4.1

Task No. 47 Manage, direct, and supervise the operations of a farm supply cooperative with 20 to 100 men to obtain maximum net profit and minimum operating expenses.

Used by: Godfrey and Fiedler, 1957

Subjects: Farm supply cooperative managers

Time limit: 3 years

Criterion: Net income and operating efficiency

Other information: TS = 5.6

Task No. 48 In India, milk production is very low and food is wasted on the unproductive cows, which are not fenced in and which roam about destroying crops. Yet the unproductive cows cannot be slaughtered because the cow is considered sacred by Hindus. How can milk production be increased?

Used by: Triandis and Hall, 1964

Subjects: American and Indian graduate students

Instructions: Following the reading of an ethnography of a small Indian village (Triandis, Minturn, and Hitchcock, 1963), each S listed as many solutions as he could think of. Then dyads listed solutions in a similar manner. Finally, dyads integrated the best ideas into one best possible solution.

Time limit: Individuals: 5 minutes
Dyads: 10 minutes listing; 10 minutes integrating

Criterion:

Individuals: creativity as rated by one psychologist. Dyads: originality, efficiency, acceptability and creativity, as rated by two psychologists. Integrated solution: acceptability to residents of Indian village, originality, efficiency, acceptability to Indian students, as rated by 7 Americans and 10 Indians. Ratings made on 15-point scales.

Other information: Interjudge reliabilities for criterion judgments generally exceeded .90.

Task No. 49

The following description of this task is taken from the Anderson (1964) Technical Report: "The first discussion task dealt with selecting the residents of an Indian village for training in technical and supervisory positions in a proposed industrial plant. The problem resulted from the fact that the village did not have enough eligible upper-class males who could fill the required supervisory positions and the fact that not all of the higher caste individuals had scored sufficiently well on some aptitude tests to qualify them for the high level supervisory positions. On the other hand, many of the lower-caste individuals had scored well enough on the aptitude test to qualify them for the supervisory positions. The triads were asked to outline a policy statement which could then be used by the industrial plant to select those individuals who were to be trained for the supervisory and technical positions and which, at the same time, would be acceptable to both Indian villagers and the American owners of the industrial plant. The policy was also to be realistic with respect to problems of caste pollution which were likely to be encountered by the residents of the village."

Used by: Anderson, 1964

Subjects: American and Indian graduate students

Time limit: 20 minutes

Criterion: (1) acceptability to the culture as judged by 5 Indian graduate students on 15-point scales, and (2) efficiency of the proposal as rated by 7 American graduate students on 15-point scales

Other information: Interjudge reliability was .57 on the acceptability scale and .74 on the efficiency scale.

Task No. 50

Group leaders were assigned the role of chairman of a membership drive committee for a church. Another committee member has collected cost figures and another knows the pulling power of various mass communication media. The task is to figure out the most effective use of available funds and time to obtain the largest number of members. This is an "inter-disciplinary" task; i.e., each member held specialized information not available to other members, which was essential for successful completion of the task.

Used by: Hackman and Jones, 1964.

Subjects: Participants at a Unitarian Leadership Training Conference in Toronto, Canada

Time limit: Not reported

Criterion: Numerical payoff attained by the group after correction for errors or failure to follow task instructions

Other information: TS = 6.6. Full task instructions and detailed breakdowns of cost and times and their relative effectiveness are included in Hackman and Jones (1964).

Task No. 51

The task required groups to find the shortest route for a ship which, given a certain fuel capacity and required ports of call, had to make a round trip calling respectively at ten or twelve ports.

Used by: Fiedler, research in progress. Referenced in Fiedler, 1965.

Subjects: Petty officers and recruits at a Belgian naval training center

Time limit: 25 minutes

Criterion: Sea miles required for the routing selected by the group. Penalties for errors were applied.

Other information: Complete materials for this task are on file at GERL.

Task No. 52

The task required groups to determine the quickest route among several towns on a hypothetical map. A matrix of inter-town distances and times was supplied.

Used by: Ninane and Fiedler, research in progress

<u>Subjects:</u>	15-17 year old boys at a Belgian multi-national school
<u>Time limit:</u>	20 minutes
<u>Criterion:</u>	Total time required for the particular routing selected by the group. Penalties for procedural errors were applied.

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APPENDIX

Tests and questionnaires included in the Appendix are:

Behavior Description Questionnaire (BDQ)
Group Atmosphere Scale (GA)
Hulin Satisfaction Scales
Interpersonal Perception Scales (MPC and LPC)
Kluckhohn Value Orientation (McGrath adaption)
Post-Meeting Questionnaire (PMQ) (with sociometric item)
Sociometric Scale

Behavior Description Questionnaire

Listed below are a number of statements which may describe the members of your group. Show how much you think a statement describes each of them, including yourself, by writing their letters on the scale beneath the item.

For example, you would place the letters A, B, and C on the scale below in such a way as to show what you think the relative height is for the members of your group. Suppose your letter is C, that member A is very tall, and that member B and you are both medium-sized. Then for this practice item you would arrange the letters as they appear below:

He is tall.

:	:	:	:	:	:
: A :	:	:	: B : C :	:	:
:Very true	:Generally	:Moderately	:Somewhat	:Not at all	:
of him	true of him	true of him	true of him	true of him	true of him

Or, if you think that every member of your group is tall, but that member A is tallest, B next tallest, and you are the shortest member of the group, you would arrange the letters as they are below:

He is tall.

:	:	:	:	:	:
: A : B : C :	:	:	:	:	:
:Very true	:Generally	:Moderately	:Somewhat	:Not at all	:
of him	true of him	true of him	true of him	true of him	true of him

BE SURE TO RATE ALL THE MEMBERS OF YOUR GROUP, INCLUDING YOURSELF, ON EACH SCALE.

DO NOT WRITE
IN THIS SPACE

1. He prodded the group to complete the task.

: : : : : : : : : : : : : : : :
: : : : : : : : : : : : : : : :
:Very true :Generally :Moderately :Somewhat :Not at all :
:of him :true of him: true of him: true of him: true of him:

2. He was the real "idea man" in the group, suggesting new ways of handling the group's problem.

: : : : : : : : : : : : : : : :
: : : : : : : : : : : : : : : :
:Very true : : :Moderately : :Not at all :
:of him : : :true of him: :true of him:

3. He is a creative person.

: : : : : : : : : : : : : : : :
: : : : : : : : : : : : : : : :
:Very true : : :Moderately : :Not at all :
:of him : : :true of him: :true of him:

4. He was concerned only with his own ideas and viewpoint.

: : : : : : : : : : : : : : : :
: : : : : : : : : : : : : : : :
:Very true : : :Moderately : :Not at all :
:of him : : :true of him: :true of him:

5. He listened attentively to others.

: : : : : : : : : : : : : : : :
: : : : : : : : : : : : : : : :
:Very true : : :Moderately : :Not at all :
:of him : : :true of him: :true of him:

6. He influenced the opinions of others.

: : : : : : : : : : : : : : : :
: : : : : : : : : : : : : : : :
:Very true : : :Moderately : :Not at all :
:of him : : :true of him: :true of him:

7. He interrupted others when they were speaking.

: : : : : : : : : : : : : : : :
: : : : : : : : : : : : : : : :
:Very true : : :Moderately : :Not at all :
:of him : : :true of him: :true of him:

8. He criticized those with whom he disagreed.

: : : : : : : : : : : : : : : :
: : : : : : : : : : : : : : : :
:Very true : : :Moderately : :Not at all :
:of him : : :true of him: :true of him:

A B C

— — —

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A **B** **C**

- | | Very true
of him | Generally
true of him | Moderately
true of him | Somewhat
true of him | Not at all
true of him |
|-----|---------------------|--------------------------|---------------------------|-------------------------|---------------------------|
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| Very true | Moderately | Not at all |
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| of him | true of him | true of him |

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| Very true | Moderately | Not at all |
| of him | true of him: | true of him: |

GROUP ATMOSPHERE SCALE

Describe the atmosphere of your group by checking the following items.

1. Pleasant	:	<u>8</u>	:	<u>7</u>	:	<u>6</u>	:	<u>5</u>	:	<u>4</u>	:	<u>3</u>	:	<u>2</u>	:	<u>1</u>	:	Unpleasant	_____
2. Friendly	:	<u>8</u>	:	<u>7</u>	:	<u>6</u>	:	<u>5</u>	:	<u>4</u>	:	<u>3</u>	:	<u>2</u>	:	<u>1</u>	:	Unfriendly	_____
3. Bad	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	Good	_____
4. Worthless	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	Valuable	_____
5. Distant	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	Close	_____
6. Cold	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	Warm	_____
7. Quarrelsome	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	Harmonious	_____
8. Self-Assured	:	<u>8</u>	:	<u>7</u>	:	<u>6</u>	:	<u>5</u>	:	<u>4</u>	:	<u>3</u>	:	<u>2</u>	:	<u>1</u>	:	Hesitant	_____
9. Efficient	:	<u>8</u>	:	<u>7</u>	:	<u>6</u>	:	<u>5</u>	:	<u>4</u>	:	<u>3</u>	:	<u>2</u>	:	<u>1</u>	:	Inefficient	_____
10. Gloomy	:	<u>1</u>	:	<u>2</u>	:	<u>3</u>	:	<u>4</u>	:	<u>5</u>	:	<u>6</u>	:	<u>7</u>	:	<u>8</u>	:	Cheerful	_____

TOTAL _____

HULIN SATISFACTION SCALES

Group Number _____ Task Number _____ Your Letter _____

Think for a moment about the task you, as a part of a group, have just completed. How would you describe this task? In the blank beside each word, write

_____ Y _____ for "yes" if the word describes the task

_____ N _____ for "no" if the word does not describe the task

_____ ? _____ if you cannot decide

.....

DESCRIPTION OF TASK

_____ Fascinating

_____ Frustrating

_____ Routine

_____ Simple

_____ Satisfying

_____ Endless

_____ Boring

_____ Gives sense of accomplishment

_____ Good

_____ Slow

_____ Pleasant

_____ Hard on the nerves

_____ Useful

_____ Creative

_____ Tiresome

_____ Necessary

_____ Challenging

_____ Interesting

Now think for a moment about the chairman of your group. How well does each of the following words describe this person? In the blank beside each word, write

 Y for "yes" if the word describes the leader

 N for "no" if the word does not describe the leader

 ? if you cannot decide

.....

CHAIRMAN

<u> </u> Asks my advice	<u> </u> Tells me where I stand
<u> </u> Hard to please	<u> </u> Annoying
<u> </u> Impolite	<u> </u> Stubborn
<u> </u> Praises good suggestions	<u> </u> Knows job well
<u> </u> Tactful	<u> </u> Bad
<u> </u> Influential	<u> </u> Intelligent
<u> </u> Up-to-date	<u> </u> Lets me do what I want to
<u> </u> Doesn't direct group enough	<u> </u> Lazy
<u> </u> Quick-tempered	<u> </u> Keeps group working

Now think for a moment about the two people with whom you have been working in the last group of which you were a chairman. How well does each of the following words describe these people? In the blank beside each word below, put

 Y if it describes the members of the group

 N if it does not describe them

 ? if you cannot decide

.....

GROUP MEMBERS

 Stimulating

 Boring

 Slow

 Ambitious

 Stupid

 Responsible

 Fast

 Intelligent

 Easily annoyed

 Talk too much

 Smart

 Lazy

 Unpleasant

 Nosey

 Active

 Narrow minded

 Hard to talk to

 Friendly

Interpersonal Perception Scales

Instructions:

Think of the person with whom you can work best. He may be someone you work with now, or he may be someone you knew in the past.

MPC He should not necessarily be the person you like best, but should be the person with whom you have been able to work best. Describe this person as he appears to you.

110

Now, think of the person with whom you can work least well. He may be someone you work with now, or he may be someone you knew in the past.

LPC He does not have to be the person you like least well, but should be the person with whom you had the most difficulty in getting a job done. Describe this person as he appears to you.

Pleasant	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Unpleasant
Friendly	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Unfriendly
Rejecting	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Accepting
Helpful	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Frustrating
Unenthusiastic	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Enthusiastic
Lots of Fun	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Serious
Tense	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Relaxed
Distant	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Close
Cold	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Warm
Cooperative	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Uncooperative
Supportive	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Hostile
Boring	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Interesting
Quarrelsome	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Harmonious
Self-Assured	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Hesitant
Efficient	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Inefficient
Gloomy	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Cheerful
Open	: —8— : —7— : —6— : —5— : —4— : —3— : —2— : —1— :	Guarded

KLUCKHOFH VALUE ORIENTATION
(McGrath Adaption)

Man, Nature and Society: Some Fundamental Questions

Today there are many matters of controversy. Legions of issues -- political, theological, social, economic -- are supported and opposed, discussed and argued daily in the public media, in the classroom, in private conversation. But underlying all these issues there are certain fundamental questions -- questions of the nature of man, of his relation to nature and to his society--from which our beliefs and attitudes about the more tangible issues of daily life are derived. These are the basic value-orientations by which we live.

The following pages outline some of these questions of basic values, and some of the answers which men have proposed for them throughout history. Please indicate the extent to which you agree with the following statements by checking the appropriate space on the scale beneath each item. Obviously, there are no "right" or "wrong" answers to these questions; the right answers for you are the ones which best express your views.

1. The Basic Nature of Man

What is the basic nature of man? Is he inherently good or evil, both of these or neither? Whatever his basic nature, can it be changed by human efforts or is it immutable?

- a. Man is sinful by nature; he can only become good by God's grace.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

- b. Basically, man is sinful; but he can achieve goodness by faith and good works.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

- c. Man is neither good nor bad, inherently; he becomes good or evil by the way he leads his life.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

- d. Man is neither good nor evil -- he is just human, and the concepts of good and bad are not applicable for describing human nature.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

- e. Fundamentally, man is good; he sometimes loses his goodness by willful pursuit of evil ends.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

- f. Man's basic nature is human nature, and human nature is good by definition.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

2. Past, Present and Future

Some hold that man should base his life on the proven guiderules and traditions of the past. Others believe that man should look to the future, not be bound by fixed traditions in a changing world. Still others hold that man must live in the present -- that the past is history, the future speculation, and only in the present can man fulfill his destiny. Should man's orientation be past, present or future?

- a. Man should strive to preserve the best of our heritage, and should base his life on the proven guiderules and traditions of the past.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

- b. Man can only live in the present, and he can only realize his full potential and his purpose in life by action in the here and now.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

- c. Man should always look to the future, and strive to live in a manner appropriate to the changing times.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

3. Man in Relation to Nature

What is man's role in relation to nature? Should he fear it; accept it; attempt to master it?

- a. Mortal man is such a minute part of the awesome majesty of nature that he must accept his humble place within the overall scheme of things.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

- b. Man is nature; he is neither its subject nor its master, but is one with the unit of nature.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

- c. Man is the master of his fate; he must seek to understand the laws of the universe in order to utilize them to benefit and improve humanity.

:	:	:	:	:	:
Strongly	Agree	Tend to	Tend to	Disagree	Strongly
Agree		Agree	Disagree		Disagree

4. Man's Basic Purpose in Life

How should man behave during his lifetime? What temporal ends should he strive for? What is man's purpose in life?

- a. A human life is intrinsically valuable in and of itself; man's basic goal should be the existence and perpetuation of human life itself.

: _____ : _____ : _____ : _____ : _____ : _____ :
Strongly Agree Tend to Tend to Disagree Strongly
Agree Agree Disagree Disagree

- b. Man's goal should be a maximum development and fulfillment of himself -- his own self-actualization.

: _____ : _____ : _____ : _____ : _____ : _____ :
Strongly Agree Tend to Tend to Disagree Strongly
Agree Agree Disagree Disagree

- c. Man is what he achieves; his basic goal should be to work for the benefit of humanity.

: _____ : _____ : _____ : _____ : _____ : _____ :
Strongly Agree Tend to Tend to Disagree Strongly
Agree Agree Disagree Disagree

5. Man's Relation to His Fellow Man

How should man relate to other men, to his society? What should be held supreme, the individual, the family, the total society?

- a. Man's most precious gift is his own individuality; it is the individual man who must be the focus of any human relationship.

: _____ : _____ : _____ : _____ : _____ : _____ :
Strongly Agree Tend to Tend to Disagree Strongly
Agree Agree Disagree Disagree

- b. Man's fundamental social and biological relationships are with his family; these familial relationships must have pre-eminence in human society.

: _____ : _____ : _____ : _____ : _____ : _____ :
Strongly Agree Tend to Tend to Disagree Strongly
Agree Agree Disagree Disagree

- c. Man is not really human except as he participates in a network of human relationships and shares the values and goals of the larger society; thus, the central focus in all human relationships must be on the common good of the total society.

: _____ : _____ : _____ : _____ : _____ : _____ :
Strongly Agree Tend to Tend to Disagree Strongly
Agree Agree Disagree Disagree

POST-MEETING QUESTIONNAIRE

1. Did you enjoy being a member of this group?

Very much: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Not at all

2. Did the other group members seem to like and accept you?

Very much: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Not at all

3. Did you feel relaxed and comfortable?

Very re-
laxed: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Not at all
relaxed

4. Are you satisfied with your own contribution to the group task?

Very sat-
isfied: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Not at all
satisfied

5. Were you irritated with one or both other members of the group?

Very ir-
ritated: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Not at all
irritated

6. Did you find these tasks interesting?

Definitely: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Definitely not

7. Was it important to you that your group would be among the best?

Definitely: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Definitely not

8. Did you feel anxious or tense in this session?

Very
anxious: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Not at all
anxious

9. Did you have difficulty communicating your ideas to the group?

No diffi-
culty at
all: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Much
difficulty

10. Were there many times during the session when you felt that the group was at a dead end?

Definitely: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Not at all

11. How well do you think your group performed in comparison with other groups?

Better than : Worse than
most: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : most
Average

12. How well do you think your group will do on future tasks?

Much :
better: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Much worse
better the same worse

13. How well did the chairman do his job?

:
Very well: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : Not at all well
:

14. Please indicate on the following scales how much you liked to work with each member of your group. (Leave your own letter blank).

Person A

I liked :
working :
with him :
very much: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : I disliked
: working
: with him

Person B

I liked :
working :
with him :
very much: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : I disliked
: working
: with him

Person C

I liked :
working :
with him :
very much: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 : I disliked
: working
: with him

SOCIOMETRIC SCALE

- 1 Which of the group members had most influence on the opinion of others?

Most: _____

Next Most: _____

2. With whom in your group would you most like to work together on a task which would be similar to this, but which would last for a much longer time ?

First Choice: _____

Second Choice: _____

3. If you had to work with others in a similar task, whom in your group (excluding yourself) would you choose as leader ?

First Choice: _____

Second Choice: _____

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		2b GROUP	
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13 ABSTRACT This report presents a collection of research instruments used by the Group Effectiveness Research Laboratory (GERL) of the University of Illinois Department of Psychology from 1951-1964. Its purpose is to provide a single source to which researchers may refer for a summary of the development and application of GERL research instruments. Included are descriptions of seventeen types of tests and questionnaires and fifty-two group tasks in over forty GERL research studies.			

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KEY WORDS

Group performance tasks
Questionnaires
Interpersonal perception tests
Small group research
Leadership

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ROLE

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